DD/Mas 13-4302

5 NOV 1973

File O+M2-2

MEMORANDUM FOR: Deputy Director for Management and Services

SUBJECT

: ADP Resources Management Control System

REFERENCES

- A. Memo to DD/M&S Office Heads fr DD/M&S dtd 20 Sep 73, subj: ADP Resource Allocations for Services from OJCS
- B. Memo to DD/M&S Office Heads fr AD/JCS dtd 11 Oct 73, subj: OJCS Program Maintenance Support for DD/M&S Application Systems
- C. Memo to D/Pers fr C/PS/OP dtd 18 Jul 73 with response fr OJCS dtd 29 Aug 73, subj: Computer Requirements for Personnel Planning
- 1. The goals for establishing an improved management control system for use of the ADP resources are understood and necessary. The specific rationale within the system outlined in Reference A, however, is heavily oriented toward assumptions that the user offices are the final customers and as such are in full control of making judgements on the need and/or the relative priority of requirements levied on OJCS.
- 2. The Office of Personnel, while technically a primary user office from OJCS's viewpoint, is in fact a channel or "agent office" for processing the ADP requirements for all Agency components for personnel-related data and reports. The judgements as regards the need for data and the timing for OJCS processing are vested with the ultimate customer component or senior official authorized to levy the request and not the Office of Personnel.
- 3. The allocations for the Office of Personnel for FY 1974 as based on FY 1973 experience may or may not be realistic in terms of the FY 1974 actual requirements levied through the Office of Personnel by our customers. The OJCS Project Activity Reports for the first two months of FY 1974 already reveal the expenditure of \$152,866 of our total FY 1974 allocation. A high percentage of these expenditures is related to the on-going commitments to the MAPS projects and the processing of Tables of Organization changes incident to Agency managerial decisions of July and August 1974.

Approved For Release 2003/05/05:: GIA-RDP84-00780R005800130004-3

4. An integral element of the ADP Resources Management Control System is the new maintenance schedule as outlined in Reference B. Here again, the majority of the Office of Personnel's "maintenance" requests and the timing for their application are dictated by decisions outside the Office of Personnel. Organizational changes as approved by Component Heads must be processed upon receipt so as not to distort the monthly strength reports, Career Service Grade Authorizations, etc. We must anticipate, therefore, that "exceptions" to the assigned quarterly maintenance schedule may be a relatively common occurrence.

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- and on the Office of Personnel's role in processing ADP requirements. They are fully cognizant of the origins and nature of the day-to-day workloads that may not lend themselves to a quarterly maintenance schedule. We will continue to work closely with OJCS officers to develop advance estimates of our work requirements to permit OJCS to anticipate the impact on their resources and charges against the FY 1974 allocations presently established.
- 6. In Reference C, the Office of Personnel has identified five specific requirements where current computer programs are not responsive to important needs of Agency management as related to personnel planning. Included with the reference are OJCS's estimates as regards computer resources which would be required to satisfy these requirements. It is difficult to categorize these requirements as being a lower priority than our current commitments to the MAPS projects and the essential day-to-day Agency requirements for personnel-related data and maintenance activity. Upon completion of further research and development of our estimated FY 1974 workload requirements by members of my staff and OJCS I will be in a better position to discuss with you any problems which may exist and alternatives available for their solution.

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John F. Blake ector of Personnel

MEMORANDUM FOR: Director of Communications

Director of Finance

Director of Joint Computer Support

Director of Logistics

Director of Medical Services

Director of Personnel

Director of Planning, Programming and Budgeting

Director of Security Director of Training

SUBJECT

: ADP Resource Allocations for Services from OJCS

- 1. The CIA Management Committee approved in August an OJCS proposal for an ADP Resource Allocation System submitted with my endorsement.
- 2. The basic goal of the system is to improve management control over the level of ADP resources used and to stimulate more cost consciousness on the part of users in their requests for computer services.
- 3. Under this system, a credit allocation for OJCS services has been established for each user Office. Allocations are made in dollars and for FY 1974 will be equal to resources used by your Office in FY 1973. In general, a user Office may not demand services from OJCS in excess of its initial allocation without approval of the DD/M&S. Changes in allocation may be effected as indicated in paragraphs 3 and 5 of Attachment 1.
  - 4. You will receive two monthly reports as output from the system:
    - a. an allocation summary report (see Attachment 2); and
  - b. a detail project activity report which you should already have received for July from OJCS.
- 5. The ADP Resource Allocation System is completely independent of the Agency's budgetary control system. Each Office Director is expected to review his current requirements for ADP service and ensure that all of them are necessary. Requests to terminate projects should be addressed to the Director, JCS with an information copy to the DD/M&S. Requests for new ADP services or changes to existing services should be addressed to D/JCS. Requests for ADP services which will cause the Office to exceed their allotment as projected for the remainder of the year will require

DD/M&S approval. Such requests should be fully explained and justified, and should identify existing projects which may be terminated or reduced to offset the new requirement. If offsets cannot be identified, this, too, should be fully explained.

6. Each Office Director will comment briefly about the general status of his ADP projects in the first weekly activity report submitted after receipt from the Office of JCS of the monthly project activity and allocation summary reports. Comments should focus on the rate of expenditure of the allocation and any foreseen potential problems.

/s/ Harold L. Brownman

HAROLD L. BROWNMAN
Deputy Director
for
Management and Services

Atts.

ccs: C/ISAS C/HS

#### ADP RESOURCE ALLOCATION SYSTEM.

- 1. The ADP Resource Allocation System provides a mechanism for management to monitor and control the use of ADP resources. The overall objective is to give user management a larger role in planning the level and type of ADP support they require within established constraints. Growth of ADP resources will be controlled through more deliberate planning of activity levels for existing or future projects. The system will cause users to set priorities among their various projects.
- 2. For purposes of allocation, OJCS resources will be subdivided into five major categories, as follows:

Manpower
Batch Processing (360/OS)
Time Sharing (360/CP)
Data Preparation and Card Processing
Other

For FY 1974, resources for these categories will be allocated individually to users on a yearly basis. Yearly implies that once the allocation is made, the user chooses his own timing and rate of actually using the various resources.

- 3. The allocations set up for FY 1974 will maintain the same level of activity as that of FY 1973. Allocations will be made at the Office and Directorate levels. Each user Office will be allocated the same total dollars for each of the five major categories as billed by OJCS in FY 1973. A special reserve account will be set up for each Directorate. Funds may be transferred from Office to Office with the approval of the DD/M&S. All such transfers must be within one of the five categories (para 2). For example, dollars can move from Office A's Batch Processing account to Office B's Batch Processing account. Dollar transfers cannot be made between unlike categories, such as Manpower to Batch Processing.
- 4. Once the allocation for the Fiscal Year is made, the total dollars for each category will remain constant for that year. Performance reports (Allocation Summary Report) will reflect actual monthly activity versus a monthly straight line projection, actual year-to-date activity versus a year-to-date straight line projection, and total yearly allocation versus total remaining allocation.
- 5. If an Office is about to exceed its allocation, there are several options it may pursue. First, it should review remaining requirements for possible elimination of lower priority projects in an effort to free up the

needed allocation. If this cannot be done, it can request an additional allocation from the DD/M&S. Depending on the merits of the case, the DD/M&S can increase the allocation of the requesting Office by either charging the Directorate reserve or the account of another Office within the Directorate. However, if this action cannot be taken and the DD/M&S feels justified, he can request aid from other Directorates via OPPB. In such cases OPPB will undertake to determine where an excess allocation may exist and to broker the necessary transfers. If there is no allocation available, OPPB will recommend to DD/M&S what action should be taken. Approval would result in granting the requesting Office additional allocation. Disapproval would necessarily deny to the requesting Office the services requested.

- 6. Over time it will be necessary to revise the price rate structure to reflect changes in both the types of services provided and the technology required. When rate changes are effected, provision will be made such that existing allocations will not be reduced.
- 7. OJCS will maintain a reserve account which will be allocated especially for the rerun\* of Batch Processing. Funds will be made available for this account by computing the total Batch Processing allocation at 10% below the total actually available. This action is not meant to reduce current levels of batch activity but merely recognizes that users will not want some jobs charged to their accounts if the jobs in question were considered to have errors outside the users' control. When users' accounts are credited for jobs of this nature, the sum of these transactions will be balanced against the OJCS rerun reserve.
- 8. OJCS will have an allocation set for those activities not considered to be direct overhead. It should be noted that OJCS is both a supplier and user of ADP resources. In order to control those overhead activities related to the supplier aspect, an internal cost system is necessary and is to be addressed. As a user, however, OJCS has been billing itself and will continue to do so in the future.

<sup>\*</sup> Reruns are computer jobs that require reprocessing and are not billed to the user.

OJCS-1193-73 11 October 1973

MEMORANDUM FOR: Director of Communications

Director of Finance Director of Logistics

Director of Medical Services

Director of Personnel

Director of Planning, Programming and Budgeting

Director of Security Director of Training

SUBJECT

: OJCS Program Maintenance Support for DDM&S

Application Systems

#### 1. Definitions.

- a. <u>Program Maintenance</u>. Changes to a computer program required to improve its performance or utility, or to provide different outputs, such as a new style of report.
- b. <u>Scheduled Program Maintenance</u>. Changes scheduled in advance and usually made at periodic intervals rather than as each change is suggested.
- 2. Policy. Effective immediately, the Office of Joint Computer Support (OJCS) will provide only scheduled program maintenance for DDM&S applications. Exceptions may be made in emergencies or when approved in writing by the Director of Joint Computer Support.

#### 3. Procedures.

- a. Program maintenance will generally be done on a quarterly schedule.
- b. User offices and OJCS project leaders may submit requests for program maintenance at any time prior to ten (10) days before the end of a given quarter.



- c. OJCS will consolidate all requests for program maintenance and prepare plans for performing the analysis and programming required. These plans will be sent to user offices with a request that any comments be returned to OJCS within five working days. All plans will include estimates of labor and machine costs to be charged to user accounts.
- d. OJCS will fix programming mistakes or unexpected program performance problems which are of immediate concern to users as soon as possible. Program inadequacies or minor program faults which are not unduly disturbing to the users will be deferred until the next regular quarterly maintenance period.
- e. All program maintenance requests will be forwarded to the Chief, Applications Division, OJCS, using Form 930, Request for Computer Services.
- f. Quarterly program maintenance periods will begin on the first day of the months listed below:

OMS, OP, OS, OTR OC, OJCS, OL OF, OPPB

January, April, July, October February, May, August, November March, June, September, December.

| ``       |                                 | STATINTL |
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|          |                                 |          |
| Acting I | Director of Joint Computer Supp | ort      |

cc: C/AD/OJCS C/OD/OJCS C/SED/OJCS C/USD/OJCS

18 July 1973

MEMORANDUM FOR: Director of Personnel

SUBJECT : Computer Requirements for Personnel Planning

- discussions within PS/OP, we prepared the attached list of computer information needed to do the planning job. The requests are not made to prepare a particular study or statistical array; they are a procedural means of doing business on a continuing basis. In this sense, they are resources, no more and no less important than pencils, typewriters and hands. Without them, we will provide fewer answers than is otherwise possible, and we will use professional officers as clerks.
- 2. The importance of the computer requirements for planning purposes is evident from the fact that their identification is an OP objective in the FY 74 Program Submission—an item of accountability to the DDM&S. It is important that this perspective be kept in mind when evaluating the relative priority of these needs in relation to other personnel and non-personnel demands on the computer.
- 3. Within the last year, I think it has become clear that a significant, if not major, transformation in personnel policies and directions is taking place within the Agency. Although the precise responsibilities of the Plans Staff and OP will depend upon the response of top management to recommendations by the Personnel Approaches Study Group, it is apparent what the essential role and thrusts of the effect in PS/OP will be. I will illustrate a few examples of our continuing responsibilities for staffing you and the 7th floor, and I will mention our current capabilities for doing a thorough and timely job:
  - a. Retirement projections Many weeks of manual digitcounting are required to do things of the most elementary nature e.g. eligible retirees in future years must be calculated by the thousands, one at a time. Lacking certain essential data, projections are primitive.
  - b. Evaluation of future personnel flows within major occupational families (as the basis for fundamental planning of optimal inputs, internal movements, promotions and personnel outflows within such groupings) Only individual name information

is available, showing such basic delineations as occupational codes and sub-category codes. The process is manual.

- c. APP base year data This comprehensive system of personnel planning (introduced by Mr. Colby and requiring action by all components) is supported by machine runs that were developed for other purposes and are only partially relevant. They require extensive manipulation. A basic printout is needed, as in the budget process.
- d. Response to OMB on manpower levels Forecasting of current input levels to avoid future losses in professionalism is done poorly by manual effort. (An effective capability is important in justifying desired Agency manpower and input levels.)
- h. The attachment contains other examples of computer data needed so that professionals can spend their time analyzing instead of compiling. Moreover, OP requires the requested information in order to pursue plans with OJCS and OER to build personnel simulation models for forecasting the future effects of current choices—something that must come if we are to effectively support senior officers and line managers in the remaining 70's.
  - 5. The attached list should be a principal issue for discussion with Chief, MAPS when he visits OP to determine current computer interests.
  - 6. To facilitate a reply by OJCS regarding its capacity to meet these requests, the attachment contains spaces for availability dates to be estimated under conditions of priority and high priority handling, respectively. Once the specific reactions of OJCS are obtained, we could then hold further conversations as appropriate with OJCS and/or DDM&S to ensure that proper priority is given the earliest possible availability of the data requested.

Chief, Plans Staff Office of Personnel STATINTL

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ADMINISTRATIVE - INTERNAL USE ONLY

COMPUTER REQUIREMENTS NEEDED FOR PERSONNEL PLANNING AND MODELING

#### 1. Preparing APP

a. Objectives and Approaches

Assist the components to meet their responsibilities in preparing the APP effectively and simply as possible, by providing them with computer-produced base year data needed for preparation of APP.

b. Data Needed

| Items Needed  | Noeded Est. OJC: |                |
|---|------------------|----------------|
|   | Priority         | Hi<br>Priority |
| (1) Computer print-outs of actual FY 1974 performance in all base-year segments of Part I and II of the APP, by components. Summarize component aggregates by Directorates. (Use APP as source document in doing this programming.) |                  |                |

- 2. Projecting and Recommending of Appropriate Personnel Flows and Preparing 'se and Grade Apalyses.
  - a. Objectives and Approaches

Evaluate personnel flows and their consequences within specified occupational categories, under conditions of varying personnel reductions, losses, EOD's, promotions and internal transfers. Data are needed to trace management alternatives involved in prospective or achievable variable flows, e.g. probable promotion rates; kinds of inputs required to meet program requirements; appropriate age and grade balances within occupational groups; alternative combinations of new employees, lateral entries of specialists and internal assignees; utilization of minorities; volume of personnel development needed; and desired age composition in executive and feeder groups.

b. Data Needed

| Items Needed  | Est.<br>Deliver |                |
|---|-----------------|----------------|
| rtems needed  |                 | Hi<br>Priority |
| (1) Age and Grade Distribution of ODS as of end of Fiscal Year, by Agency and Directorates. Group under sub-category code according to occupational code (put all like integers together e.g., both 150.03 and 150.04). Show each occupational code as follows: |                 |                |
| Grade Age Under 20 5 Yr. Intervals 60 and Over  (2) EODs during FY, arrayed same as para. 2 b (1) above.  |                 |                |
| (3) Separations during FY, (retirements, non-retire-<br>ments separately shown), arrayed same as para.<br>2 b (1) above.  |                 |                |
| (4) Promotions to each grade during FY, arrayed same as para 2 b (1) above.   |                 |                |
| (5) Reassignments In and Out of each grade during FY, by components and Directorates. Show RIs and ROs by sub-category codes.   | ·               |                |
| (6) Total sub-category code changes at each grade during FY (to and from professional ranks only) by components. Breakdown within each grade by occupational code (like integers together).   | ,               |                |

- 3. Evaluating Separation Trends and Facilitating Preventive Management of Attrition, when Feasible.
  - a. Objectives and Approaches

Analyze on a continuing basis the more significant elements of employee separations, in order to acquaint Agency officials with areas of possible preventive or remedial action. Use in an integrated data matrix for component Directorate and Agency levels to permit managements' quick appraisal of vacancies from normal

levels of attrition. Highlight job-related attrition, versus other types of separations, and focus on the relative significance of reasons for separation.

| b. Data Needed   |                 | •              |
|--|-----------------|----------------|
| Items Needed   | Est.<br>Deliver |                |
|  | Priority        | Hi<br>Priority |
| (1) Quarterly, semi-annual and annual attrition matrix, with related reports, by Agency, Directorates and components (use matrix attached).  |                 |                |
| (2) Quarterly, semi-annual and annual listing of separations, by reasons and relative significance of reasons (using revised separation codes and scales of relative significance in individual cases, as cited by departing employees), prepare by Agency, Directorates and components. |                 | •              |

#### 4. Estimating Inputs Needed to Maintain Agency Professionalism

#### a. Objectives and Approaches

Provide guidance to top management and OMB on the minimal input of professionals needed each year to offset future annual losses of all officers GS-13 and above by well-qualified professionals. A rough estimate submitted last year to OND helped to justify Agency manpower levels and provided an argument against further ceiling cuts. Such estimating should be prepared annually, based upon improved data, in support of future manpower requests. This planning effort must take into account the probable annual volume of separations, lateral entries and conversions of clericals and technicals to professional status within grades GS-12 and below in order to estimate how many additional young professional EOD's should be brought in each year to produce any given number of professionals that will be needed to replace estimated losses in grades GS-13 and above some seven to eight years later. (This estimated time span represents the lapse between the time young professionals EOD at varying in-hiring rates and the normal time when well-qualified young professionals can be expected to reach the GS-13 level.

#### b. Data Needed

| The state of the s | CONTRACTOR OF CONTRACTOR OF STATE OF ST | THE PROPERTY OF PERSONS AND PROPERTY. |
|--|--|---------------------------------------|
| The state of the s |  | . OJCS                                |
| Items Needed   | Delivo   | ery Date                              |
|  |  | Hi                                    |
|  | Priority   | Priority                              |
| <ul> <li>(1) Average time-in-grade for promotion of professionals to each grade during the FY, by Agency, Directorates and components. Show by occupational codes (all like integers together).</li> <li>(2) Other information needed concerning changes in sub-category codes, EOD's and separations within grade groups can be obtained from available machine runs or data requested in this paper.</li> </ul>  |  |                                       |

#### 5. Projecting Retirements

#### a. Objectives and Approaches

Project probable levels of retirements and evaluate personnel implications for the attention and action of senior officials, monitor administration of the CIARDS quota; assist the Office of Finance in determining future funding liabilities of CIARDS; and advise the Directorate and components concerning prospective personnel flows and related developments applicable to their areas.

| ·b. Data Needed  |          |                 |
|--|----------|-----------------|
| Time Novied  | ł        | OJCS<br>ry Date |
|  | Priority | Hi<br>Prionity  |
| (1) Eligibles by retirement system (CIARDS or CSRS) for current and next ten Fiscal Years. Names of eligibles should appear in one year only (mandatories by definition are eligibles) Sort by Agency, Directorates and components, Career Services, and occupational codes. | •        |                 |
| Note: In each sort, eligibles should be ranked in descending order of age and by grade within groups of the same age and include name, DOB, grade, SCD, LCD, and CIARDS qualifying service, if any.  (2) Eligibles in each year FY 69-73, tabulated as above.                |          |                 |

- (3) For current and next 10 FY's, all personnel under age 50 who have 25 or more years of service plus CSRS participants over age 50 with 20 or more years service not otherwise eligible [for discontinued service projections].
- (4) Employees who voluntarily retired one, two, three, four or more than five years before their mandatory retirement date. Trace for all retirees whose scheduled mandatory retirement years were FY 1973, 1972, 1971, 1970 or 1969.
- (5) Number of CIARDS participants with overseas qualifying services between 3 to 4 years as of October 1964 who subsequently acquired 5 years overseas service in one of the years 1964 to 1973. Repeat process for those who had between 4 and 5 years service as of October 1964.
- (6) Ditto above, using data sample as of October 1969.
- (7) Retirements by occupational code by grade and age (combine all under 50 in one age group and all 60 and over in one age group).
- (8) Retirements by month (semi-annual and annual reports), sub-divide as follows:

  By system (CIARDS, CSRS)

  By employee category (appointee, contract, wage board, special pay plans)

  By type (mandatory, discontinued service/involuntary, voluntary/optional, disability)

Next 1 Page(s) In Document Exempt

24 August 1973

MEMORANDUM FOR: Deputy Director of OJCS

SUBJECT

Computer Requirements for Personnel Planning, Memorandum from Chief, Plans

Staff, OP, dated 18 July 1973

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#### On 16 August, four members of OJCS

Branch from the Office of Personnel to review the reports requested in the referenced memorandum and to define the populations involved, the base to be used for computing percentages, averages, etc.

- 2. The entire package involves 108 reports, 36 of which are contained in the Advanced Personnel Planning (APP) mentioned in paragraph 1. The reports can be categorized as follows:
  - 93 Can be programmed with data in the current computer system
    - 3 Less than half the figures required can be obtained from the data available
    - 8 No data is available in the system
  - 4 Probably can be programmed with current data but specifications were unknown or not obtainable from the OP representatives is in the hospital).

## 3. An analysis of the time and costs involved are as follows:

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#### a. Paragraph #1 - Preparing APP

|   | Man Hours |    |          |
|---|-----------|----|----------|
| Design and Report Specifications Flowcharting/Coding/ | 200       | =  | \$ 3,400 |
| Compile   | 860       | =  | 14,620   |
| Debugging and Testing Implementation and              | 250       | =  | 4,250    |
| Documentation   | 180       | == | 3,060    |
| Sub Total   | 1490      | =  | \$25,330 |
| Overhead 20%  | 298       | =  | 5,066    |
| TOTAL   | 1788      | =  | \$30,396 |
|   |           |    |          |

## b. Paragraph #2 - Personnel Flows and Age/Grade Analyses

|                                  | Man Hours |          |    |       |
|----------------------------------|-----------|----------|----|-------|
| Design and Report Specifications | 48        | _        | \$ | 816   |
| Flowcharting/Coding/             | •         |          | •  |       |
| Compile                          | 180       | <b>=</b> |    | 3,060 |
| Debugging and Testing            | 60        | =        |    | 1,020 |
| Implementation and               |           |          |    | ·     |
| Documentation                    | 30        | =        | _  | 510   |
| Sub Total                        | 318       | =        | \$ | 5,406 |
| Overhead 20%                     | 64        | =        | _  | 1,088 |
| TOTAL                            | 382       | Ħ        | \$ | 6,494 |

## c. Paragraph #3 - Separation Trends and Preventive Attrition

|   | Man Hours   |    |    |                |
|---|-------------|----|----|----------------|
| Design and Report Specifications Flowcharting/Coding/ | 56          | == | \$ | 952            |
| Compile Debugging and Testing                         | 200 ·<br>70 | =  | •  | 3,400<br>1,190 |
| Implementation and Documentation                      | 30          | == |    | 510            |
| Sub Total   | 356         | =  | \$ | 6,052          |
| Overhead 20%  | <u>71</u> . | =  | _  | 1,207          |
| TOTAL   | 427         | =  | \$ | 7,259          |

#### d. Paragraph #4 - Agency Professionalism

|  | Man Hours |   | 1            |
|--|-----------|---|--------------|
| Design and Report Specifications Flavorations            | 16        | = | \$<br>272    |
| Flowcharting/Coding/<br>Compile<br>Debugging and Testing | 60<br>20  | = | 1,020<br>340 |
| Implementation and Documentation                         | . 10      | = | 170          |
| Sub Total  | 106       | = | \$<br>1,802  |
| Overhead 20%   |           | = | 357          |
| TOTAL  | 127       | = | \$<br>2,159  |

#### e. Paragraph #5 - Projecting Petirements

| Daging and Dagent                                     | Man Hours |    |          |
|---|-----------|----|----------|
| Design and Report Specifications Flowcharting/Coding/ | 88        | Ε, | \$ 1,496 |
| Compile   | • 340     | == | 5,780    |
| Debugging and Testing Implementation and              | 110       | == | 1,870    |
| Documentation   | 60        | =  | 1,020    |
| Sub Total   | 598       | =  | \$10,166 |
| Overhead 20%  | 120       | =  | 2,040    |
| TOTAL   | 718       | =  | \$12,206 |

4. Attachment A is a summary of estimated cost, both man hours and computer.

| 1 |  |  |
|---|--|--|

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Attachment

# PROPOSED COMPUTER REQUIREMENTS FOR PERSONNEL PLANNING Summary of Estimated Cost

| ·            | Number of<br>Reports  | Estimate of Hours | Estimated Cost<br>Design/Programming | * Estimated Computer Cost |
|--------------|---|-------------------|--------------------------------------|---------------------------|
| •            | المحالة | ţ                 |                                      |                           |
| Paragraph #1 | 36  | 1788              | \$30,396                             | \$18,000                  |
| Paragraph #2 | 11  | . 382             | 6,494                                | 5,500                     |
| Paragraph #3 | 6   | 427               | 7,259                                | 3,000                     |
| Paragraph #4 | 3   | 127               | 2,159                                | 1,500                     |
| Paragraph.#5 | 40  | 718               | 12,206                               | 20,000                    |
|              | ·   |                   |                                      | • •                       |
| TOTALS       | 96  | 3442              | \$58,514                             | \$48,000                  |
| TOTAL COST   |   | 3442              | \$106,514                            |                           |

<sup>\*</sup> Includes only cost for debugging and testing.
Estimates are for only those reports that can be done.

AN OBSERVATION ON #2 —
WITH OUR LARKER MINAGRMENT

WITH OUR LARKER MINAGRMENT

ROLE, OP OR ANY OFFICE, SHOULD

ROLE, OP OR ANY OFFICE, SHOULD

NOT BE CONTENT ALWAYS TO BE MERELY AN "AGENT" BUT RATHER SHOULD DECIDE WHEN A REQUIREMENT USING ADA IS REASONABLE AND NECESSARY AND WHEN THE ACTION SHOULD BE DEFERRED, DENED OR NOD, E. ED.